

Schematic of the Longitudinal Section of Extraction tubes with:  
(A) Sol-gel Coating  
(B) Sol-gel Monolithic Bed

FIG. 1

# Introduction of the Extracted Sample into GC

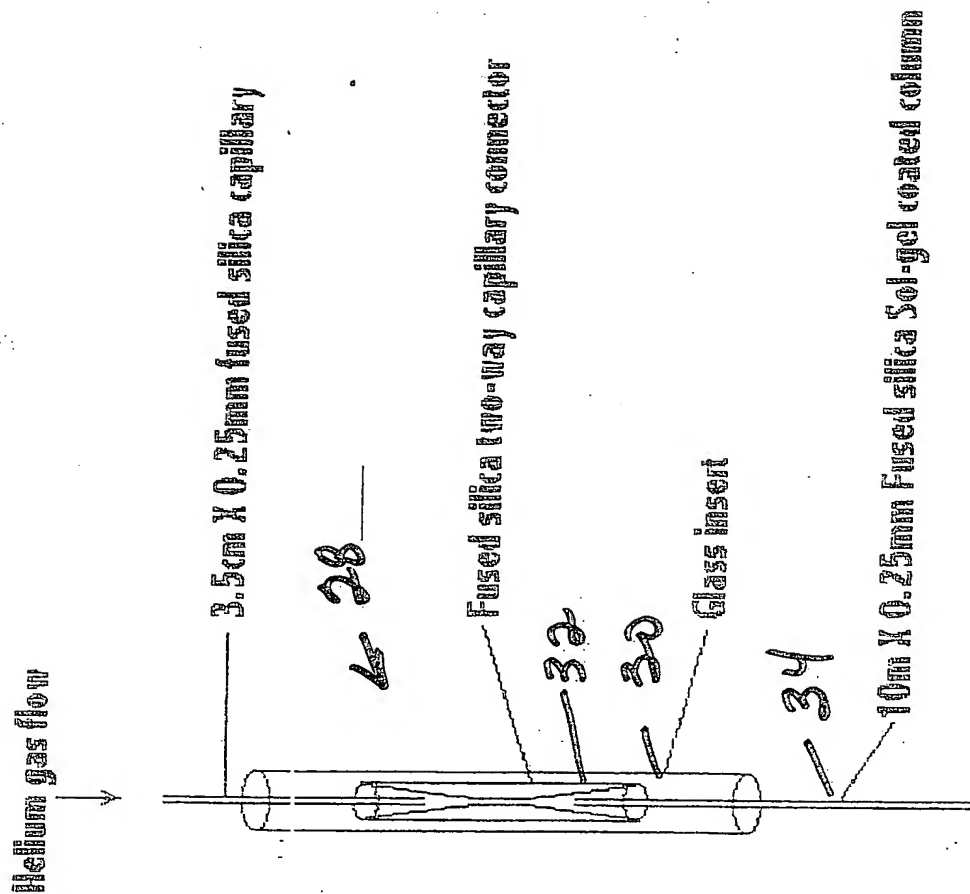
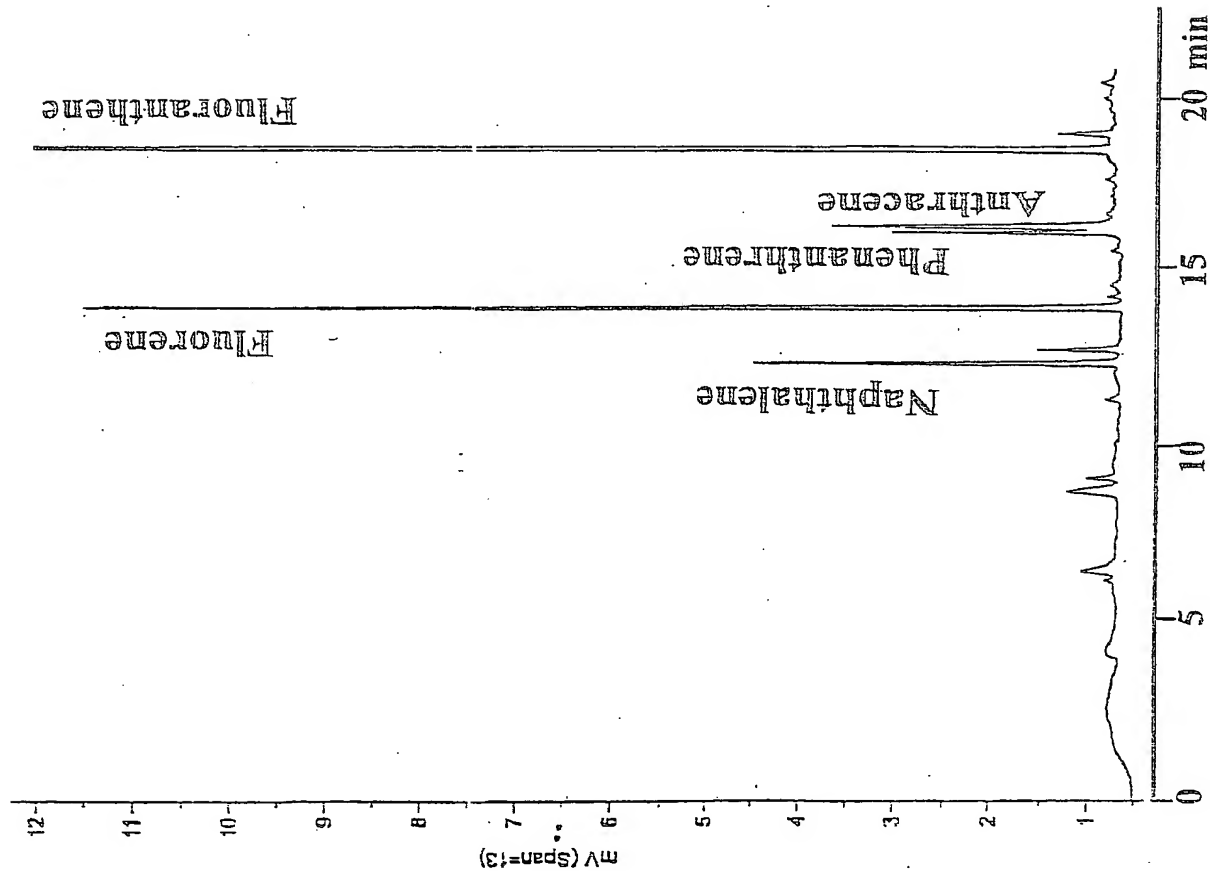


Figure 2

# Capillary Microextraction of PAHs from Water



## Extraction Conditions:

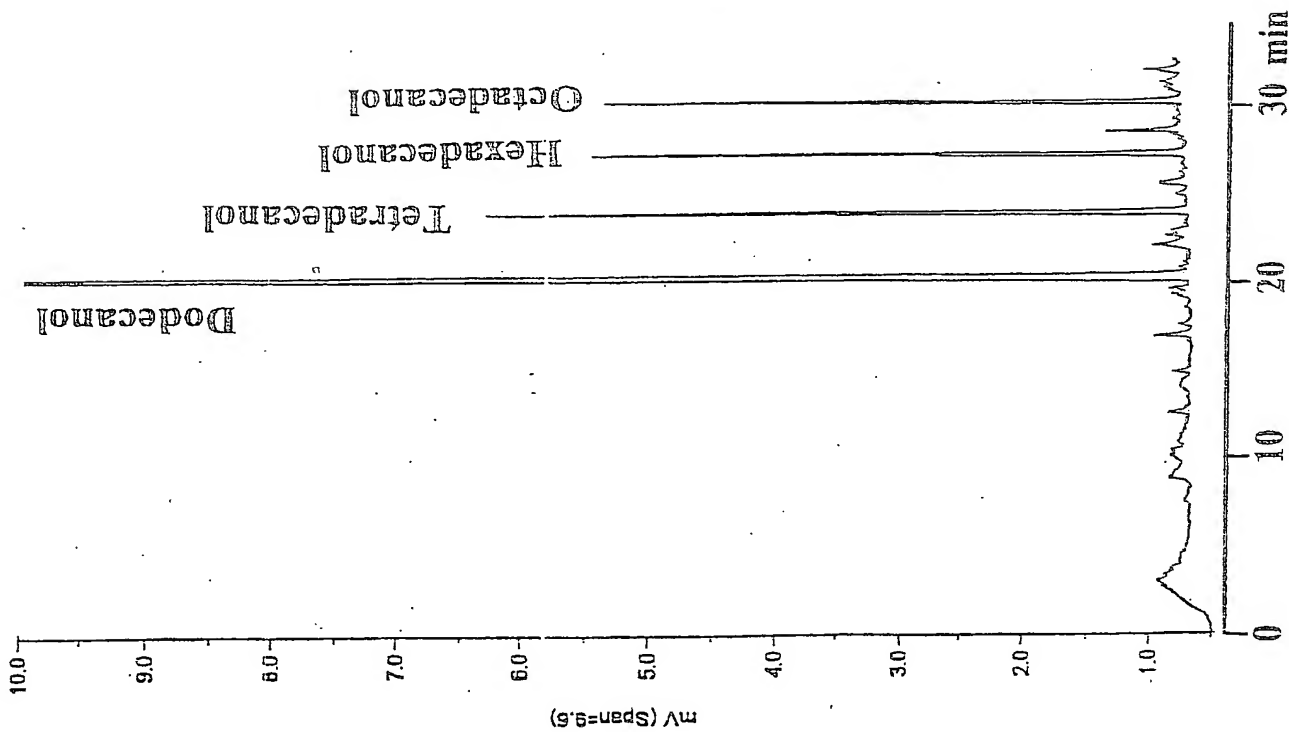
Sol-gel PDMS coated capillary  
(35 mm x 250  $\mu$ m i.d.)  
Extraction for 30 min

## GC Conditions:

Sol-gel PDMS Column  
(10 m x 250  $\mu$ m i.d.)  
30°C (5 min), @ 6°C/min

Figure 3

# Sol-Gel Capillary Microextraction of Alcohols

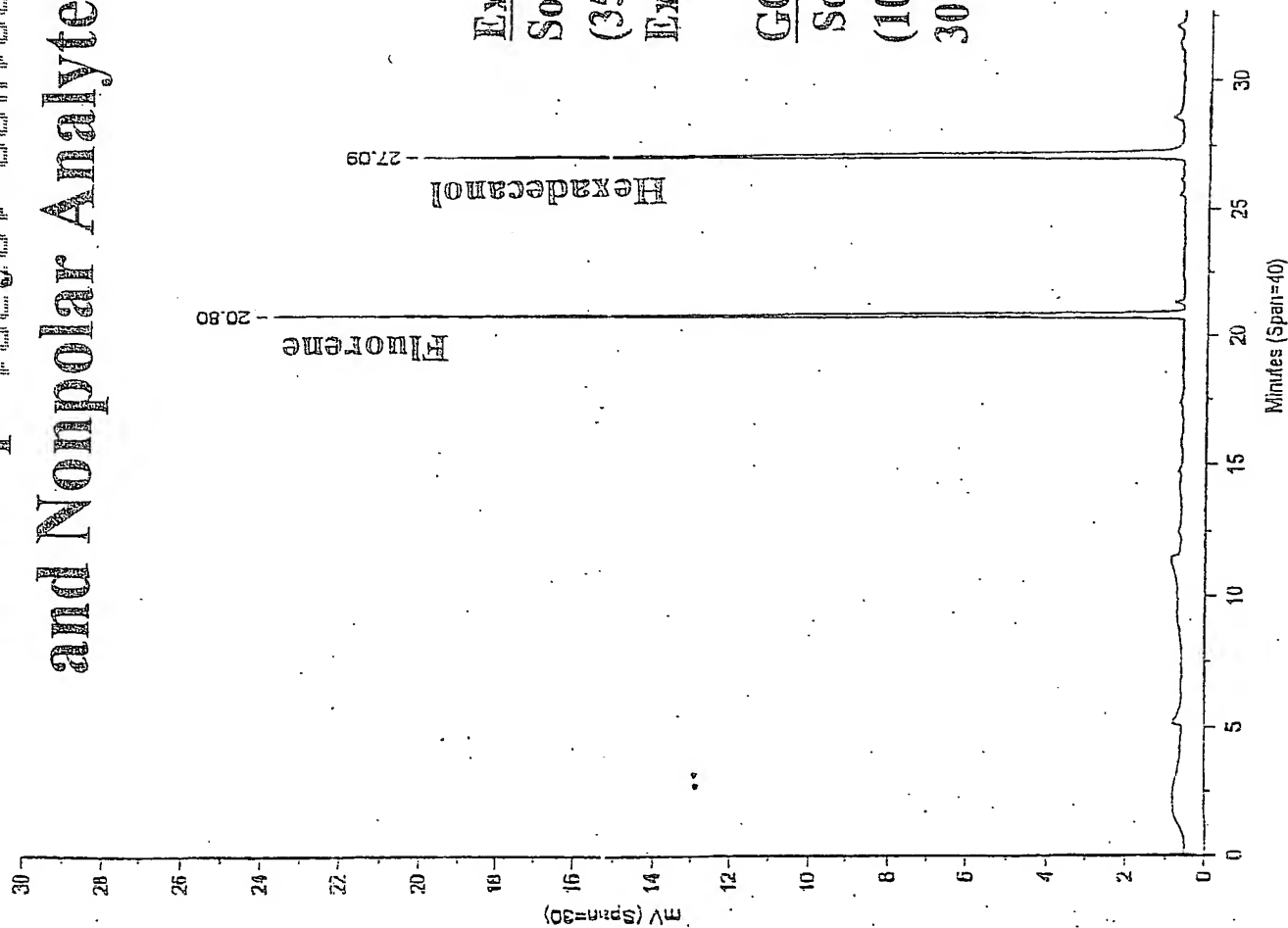


Extraction Conditions:  
Sol-gel PDMS coated capillary  
(35 mm x 250  $\mu$ m i.d.)  
Extraction for 30 min

GC Conditions:  
Sol-gel PDMS Column  
(10 m x 250  $\mu$ m i.d.)  
30°C (5 min), @ 6°C/min

Figure 4

# Sol-Gel Capillary Microextraction of Polar and Nonpolar Analytes from Water



## Extraction Conditions:

Sol-gel PDMS coated capillary  
(35 mm x 250  $\mu$ m i.d.)  
Extraction for 30 min

## GC Conditions:

Sol-gel PDMS Column  
(10 m x 250  $\mu$ m i.d.)  
30°C (5 min), @ 6°C/min

Figure 5

Mixture of 7 diff. comds

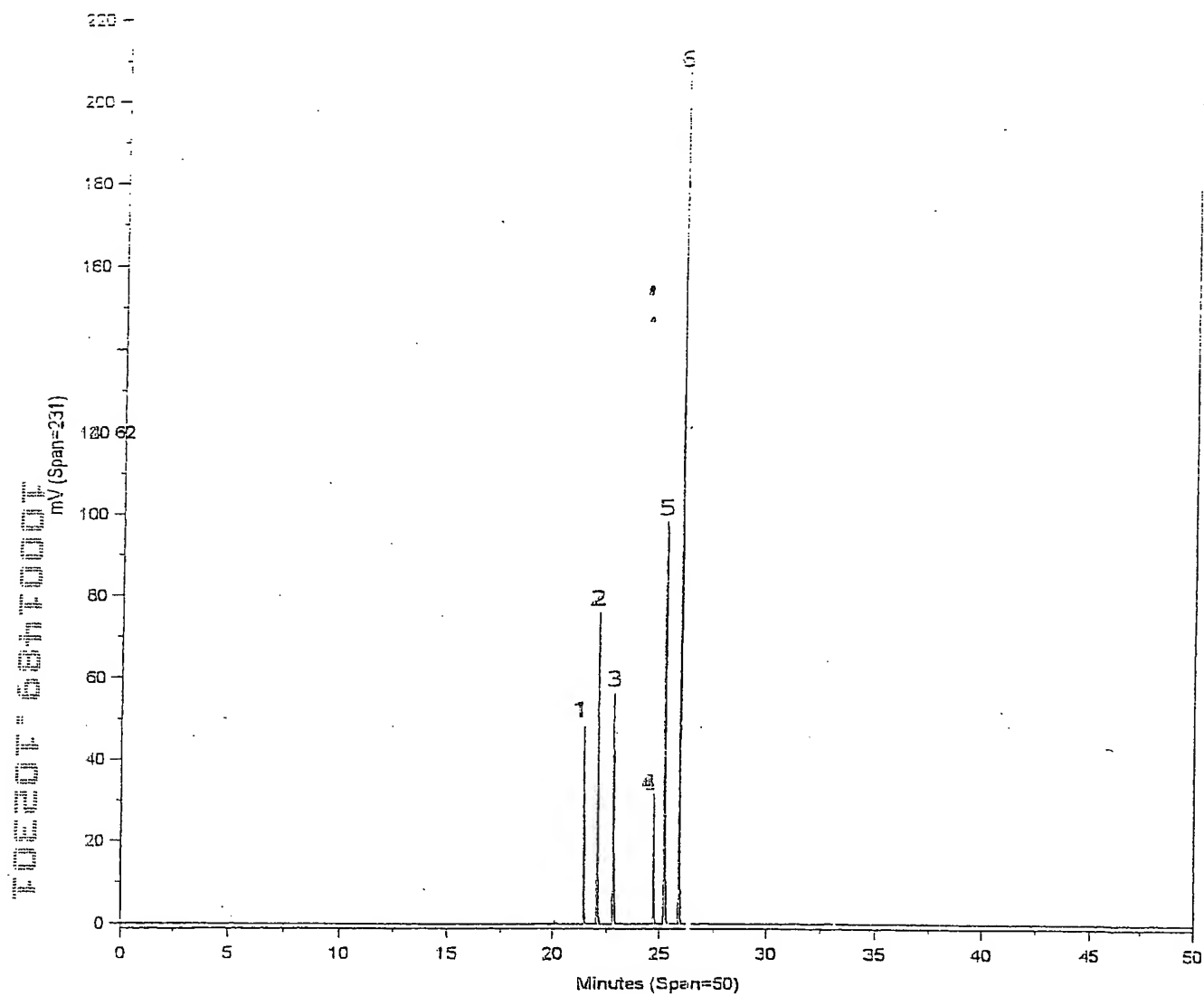
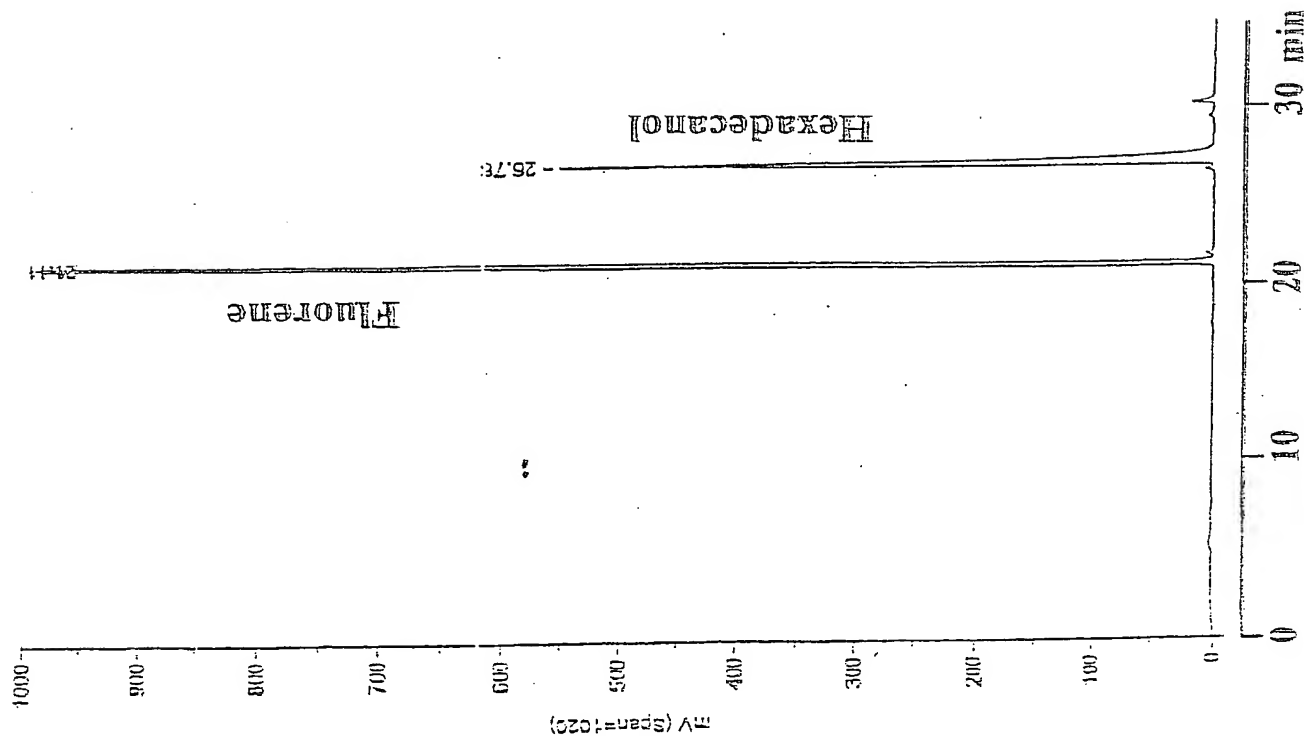


FIG. 6

# Capillary Microextraction on Monolithic Bed



Sol-Gel ODS Monolithic Bed

35 mm x 50  $\mu$ m i.d.

1 ppm

Extraction for 30 min

Desorption at 300°C

GC Conditions:

Sol-gel PDMS Column

(10 m x 250  $\mu$ m i.d.)

30°C (5 min), @ 6°C/min

Fig. 7

FOOT SHOOT

# Capillary Microextraction: Monolithic vs. Open Tubular

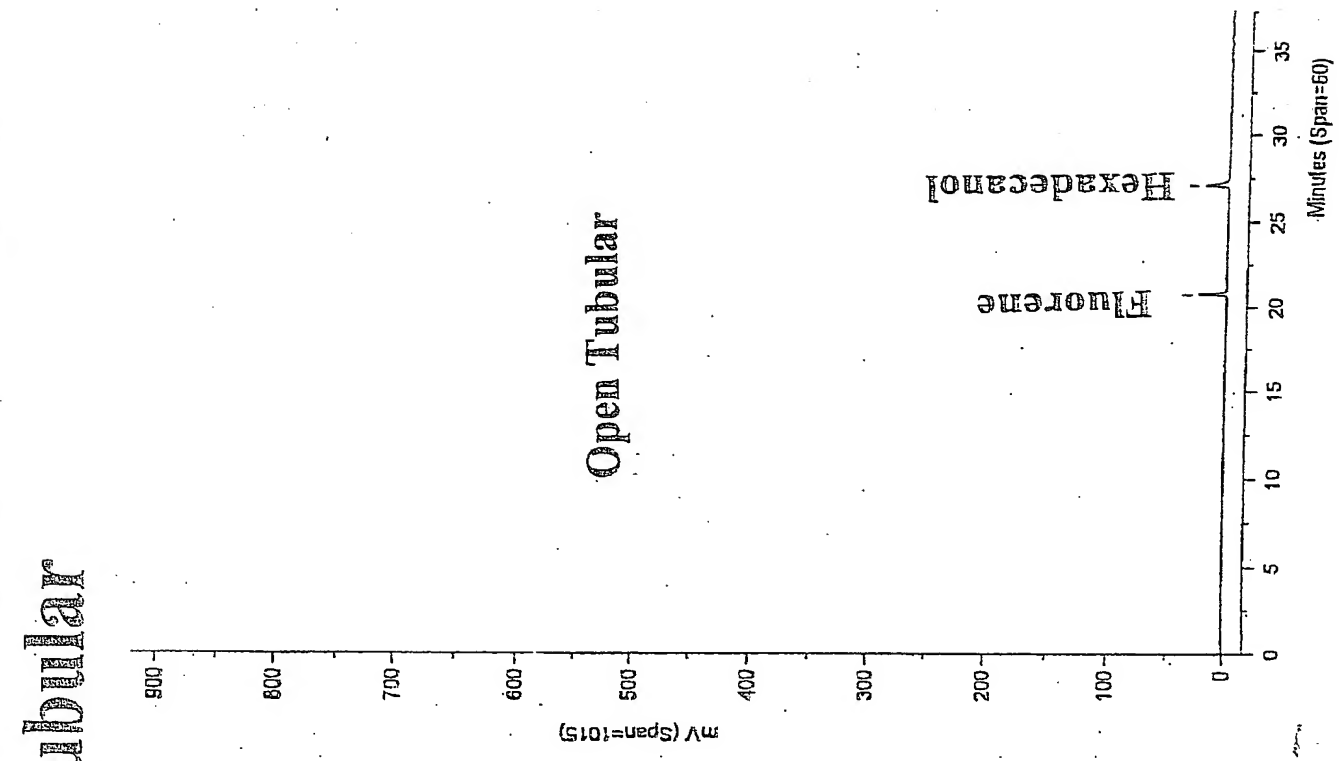
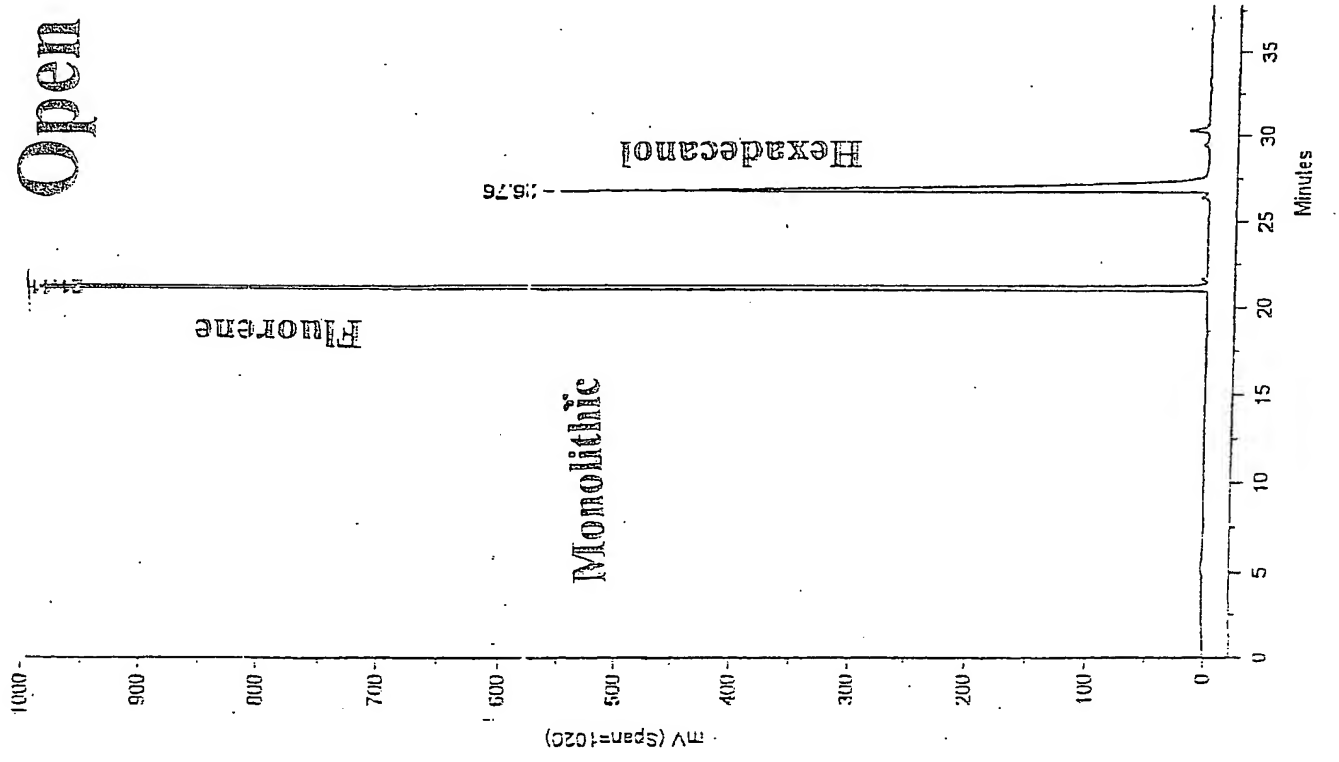


Fig. 8



# Gravity Feed Extraction System for Capillary Micro-Extraction

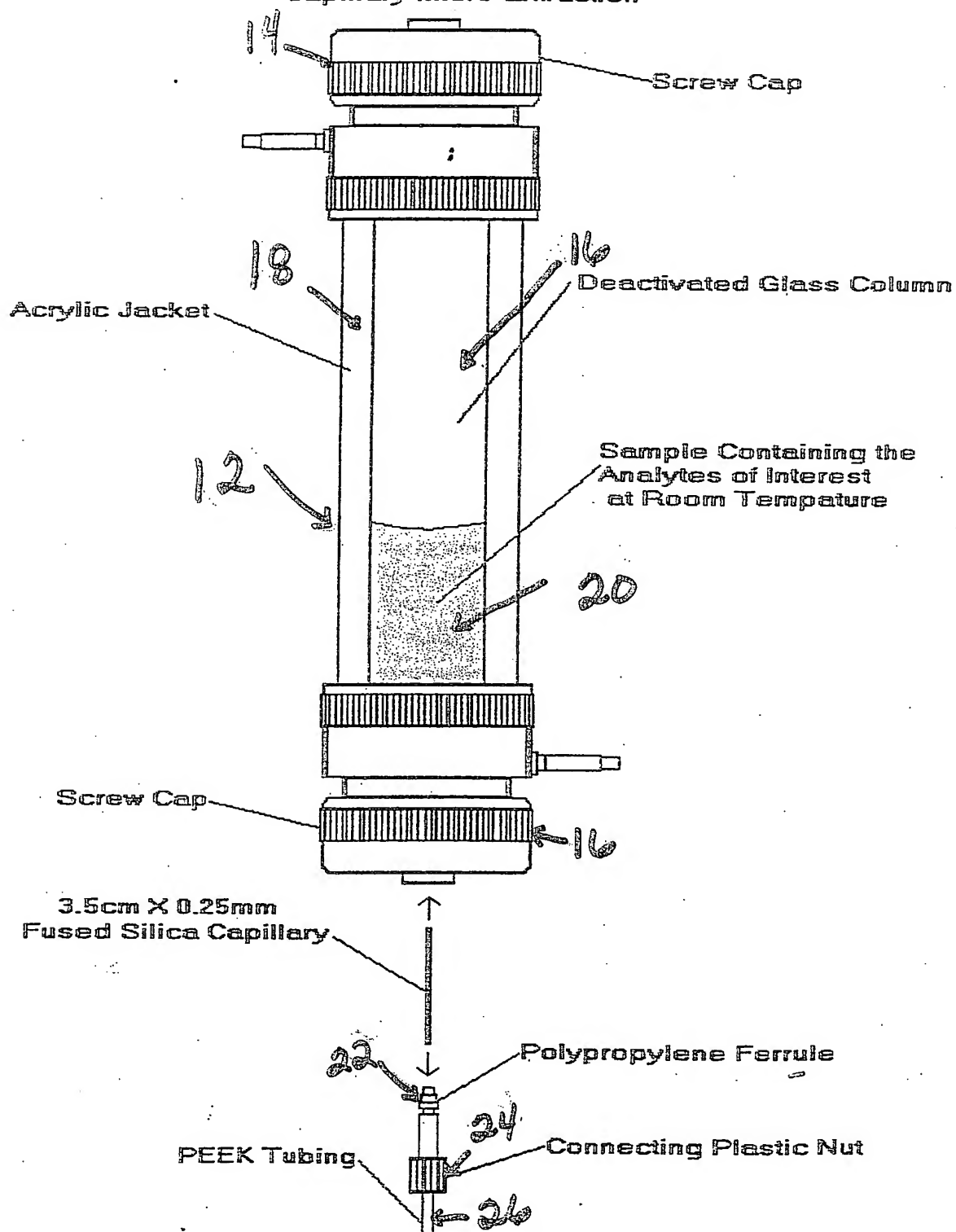


FIG. 9

10001480 102301

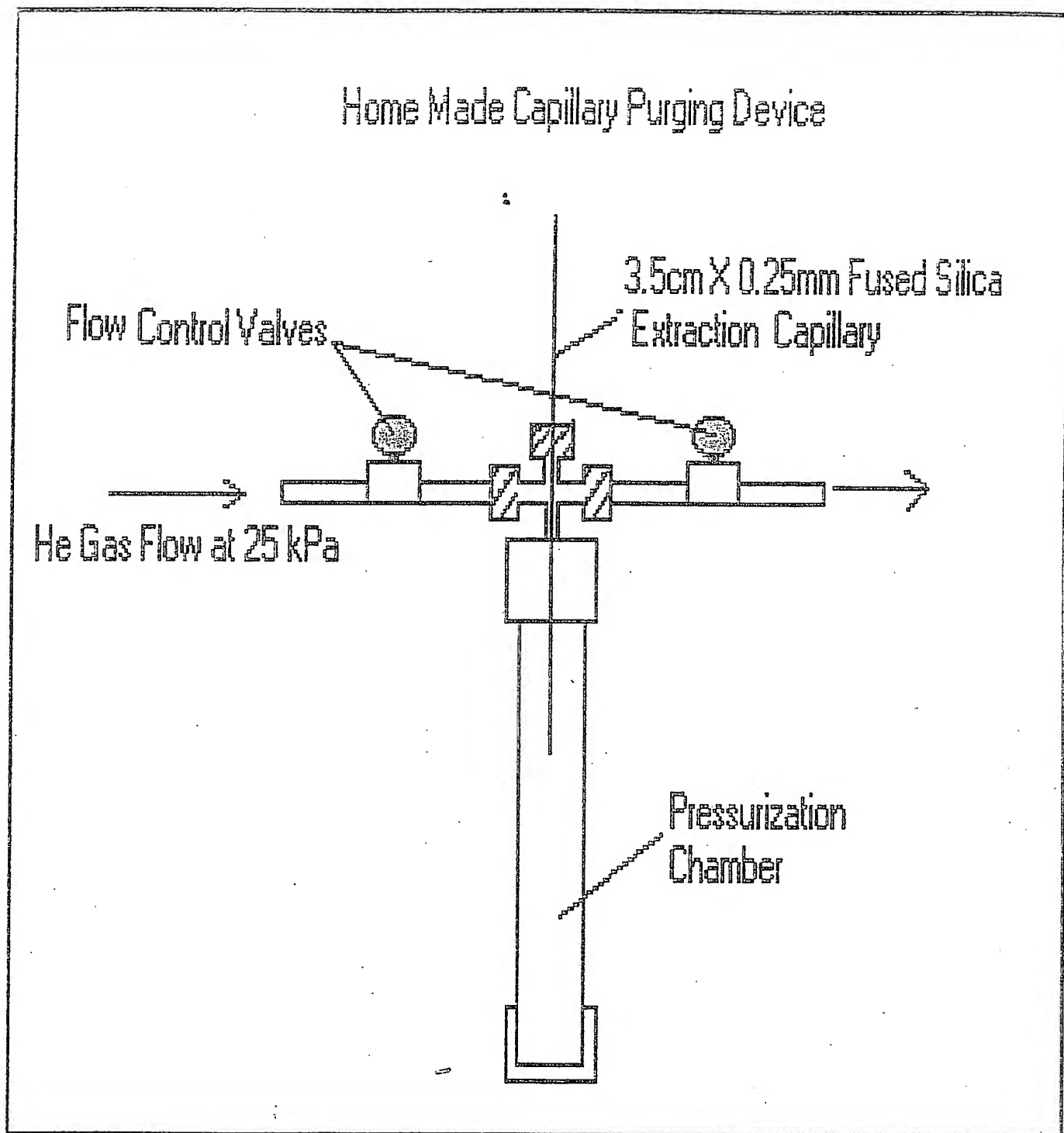
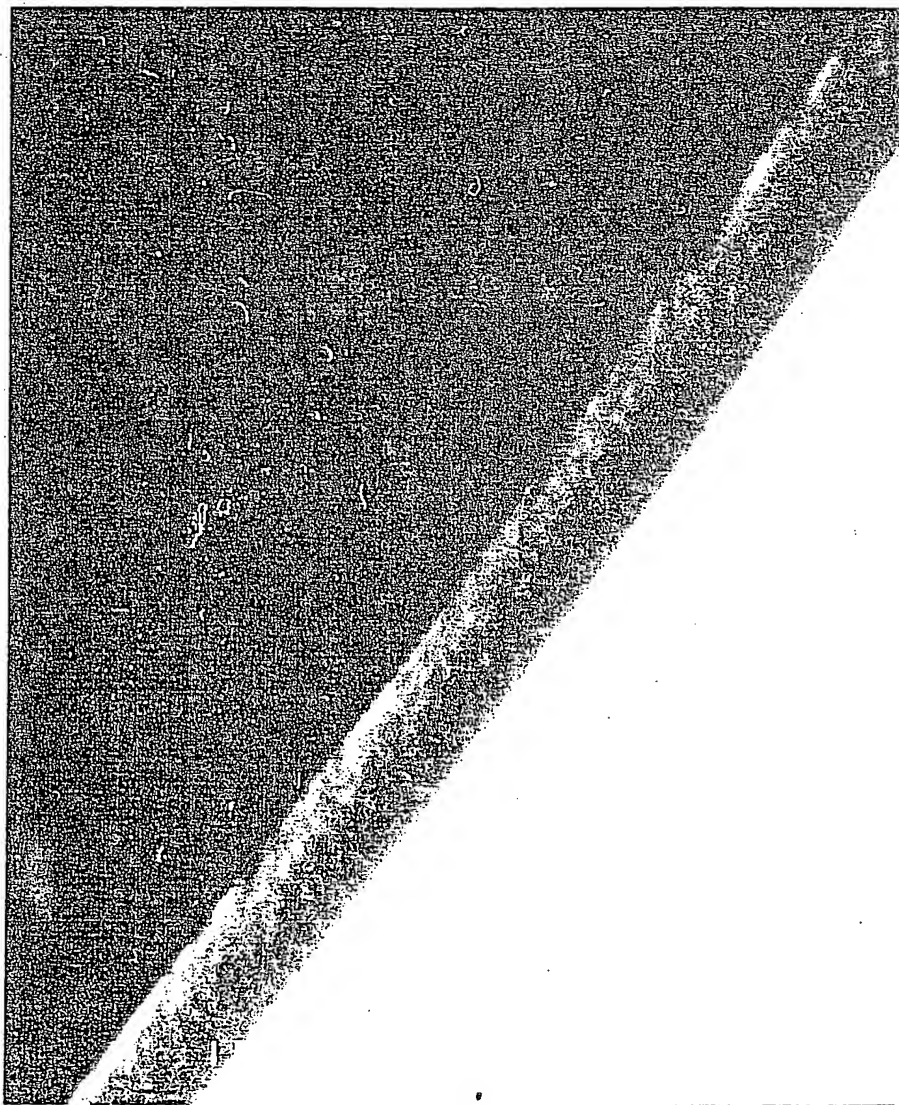


FIG. 10

FIG. 11A



FOOT-684FOOT

(Figure 4A)

10001489-102301

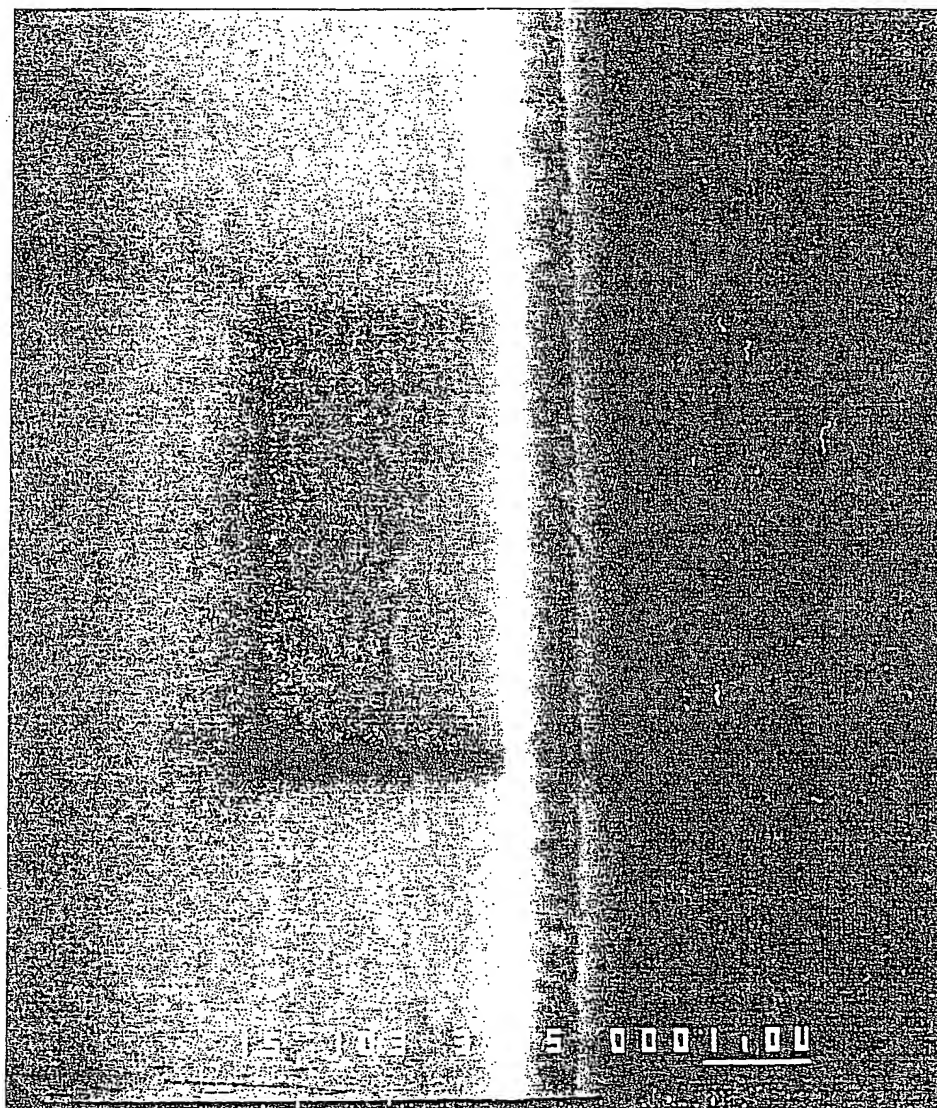


FIG. 11B

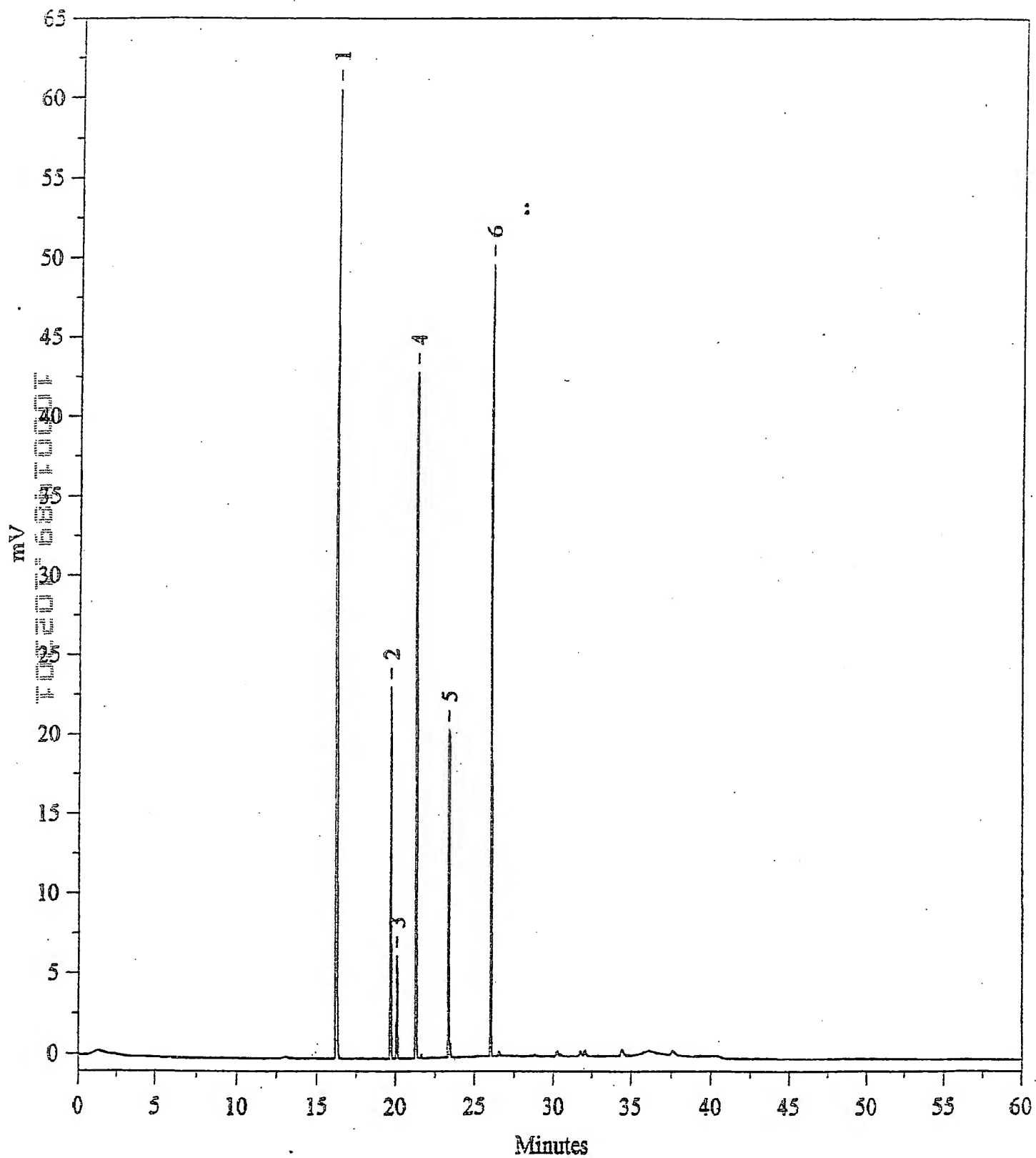


FIG. 12

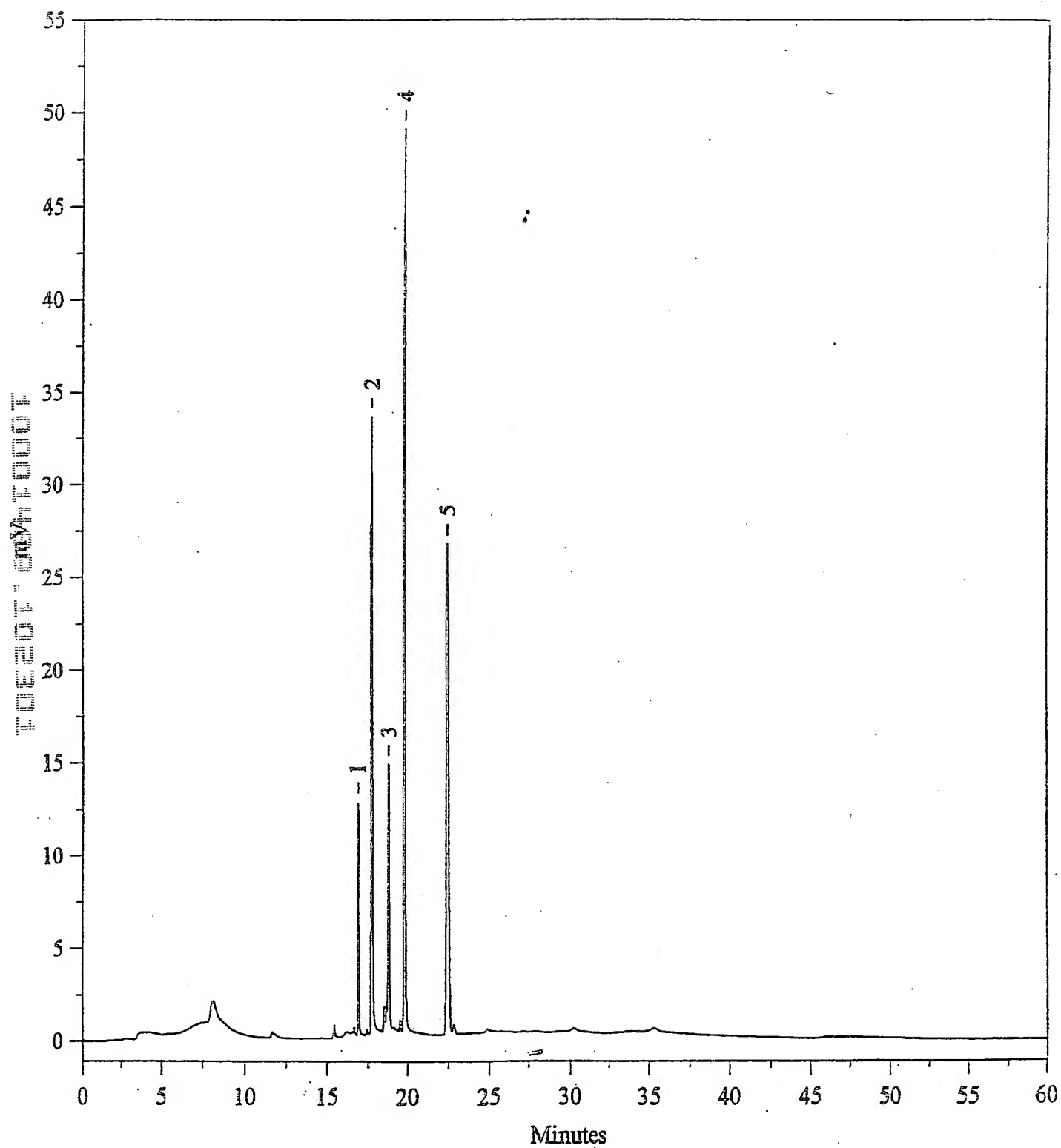


FIG. 13

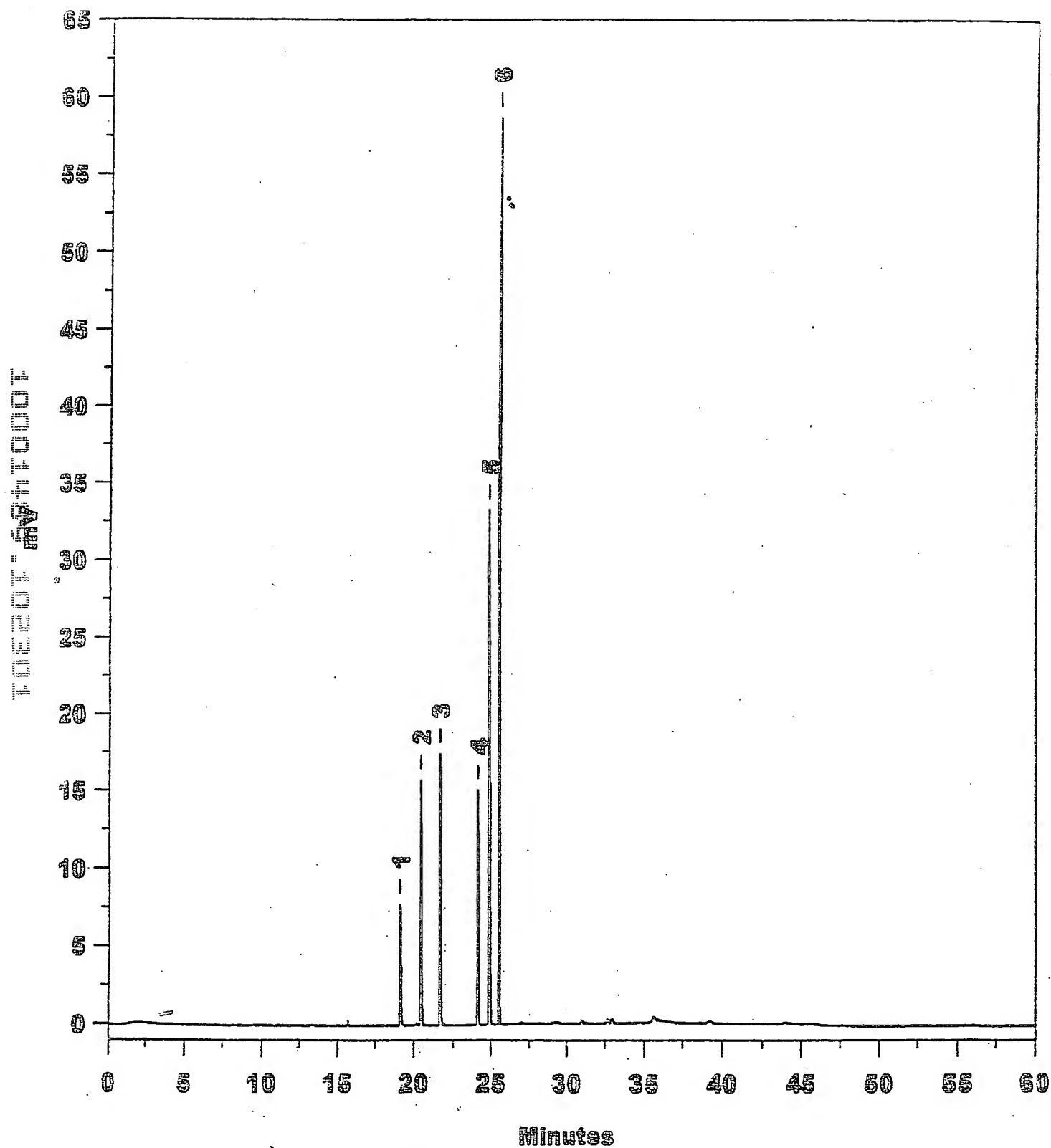


FIG. 14

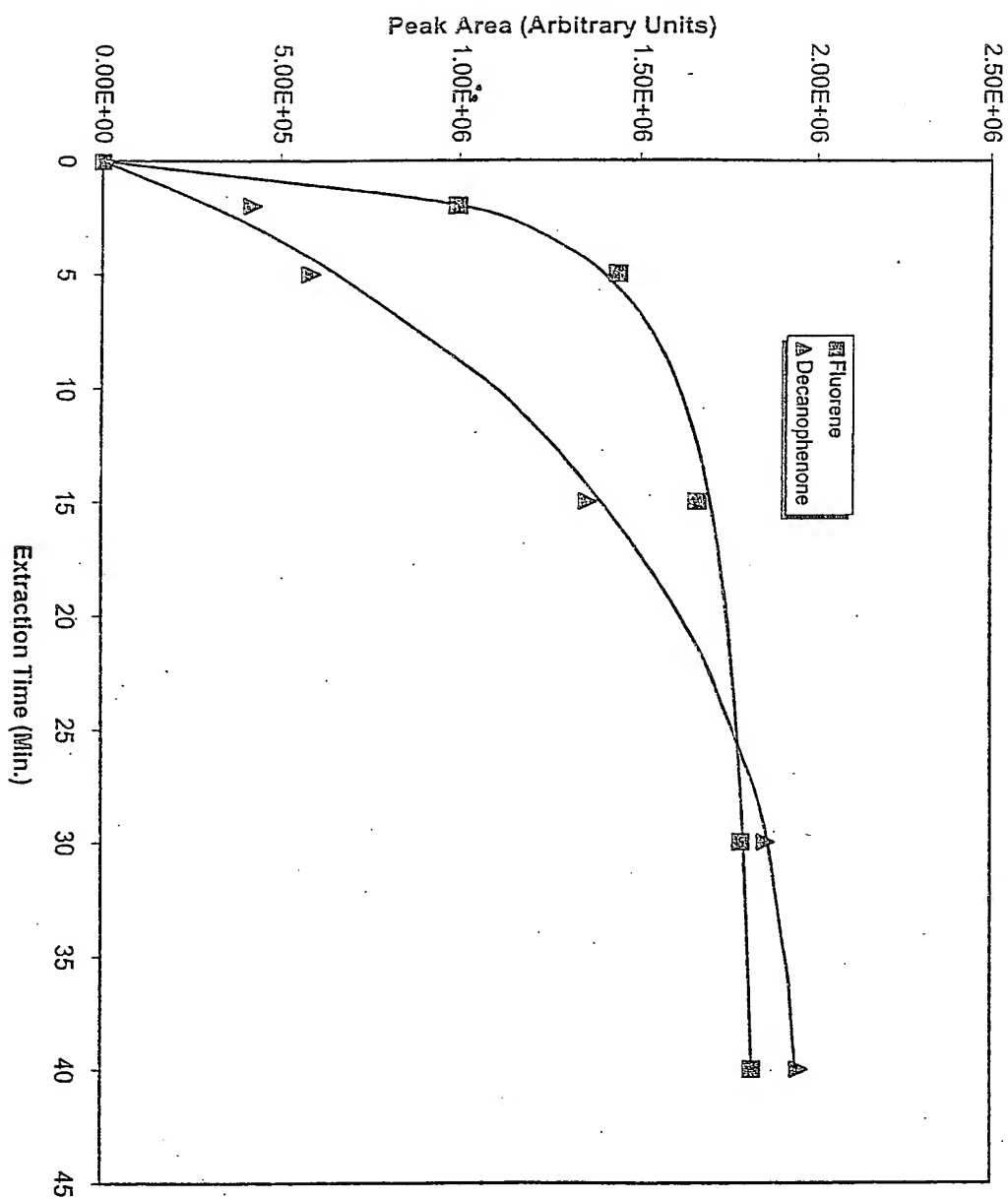


FIG. 15

10001489-102301



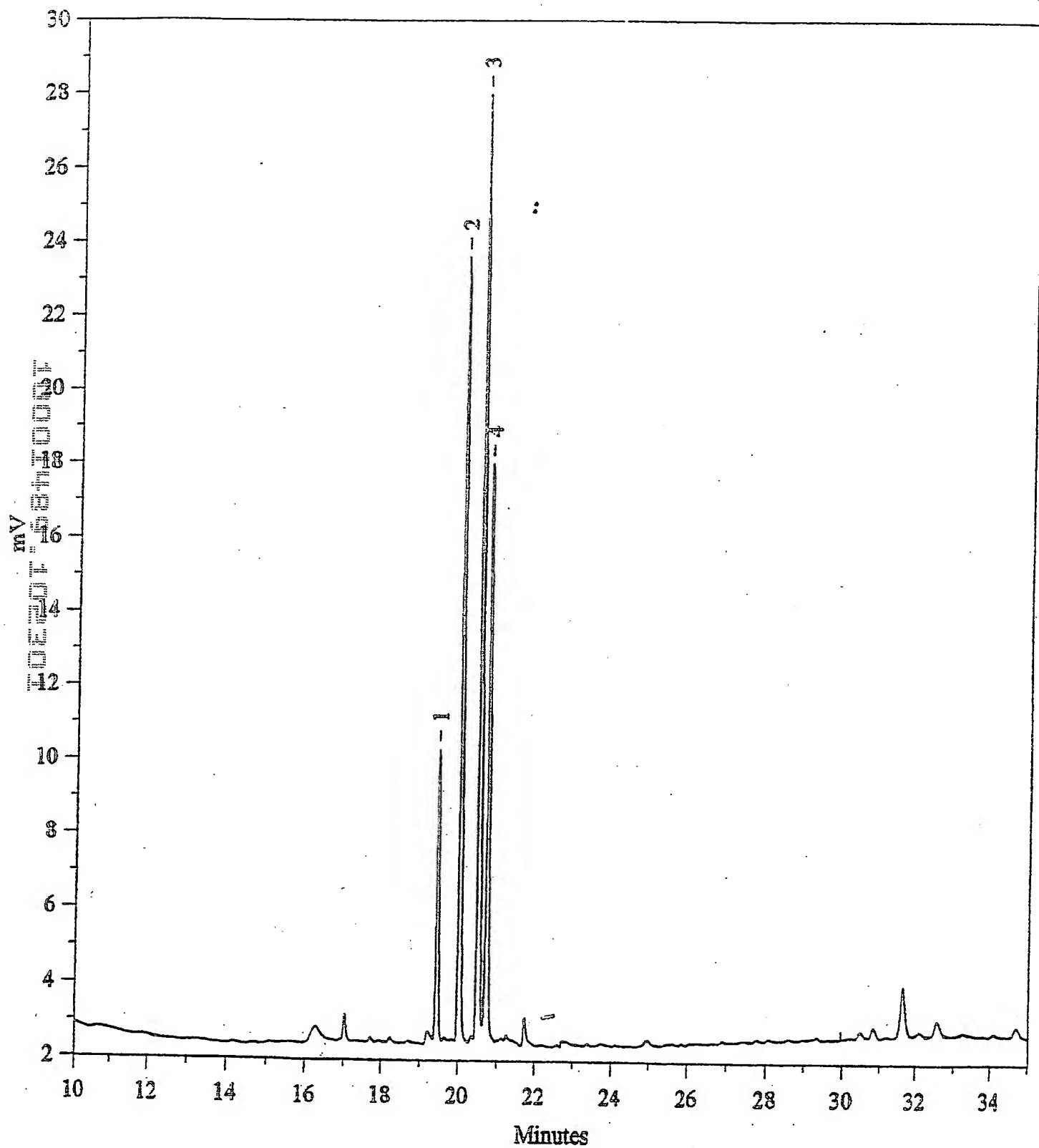


FIG. 16

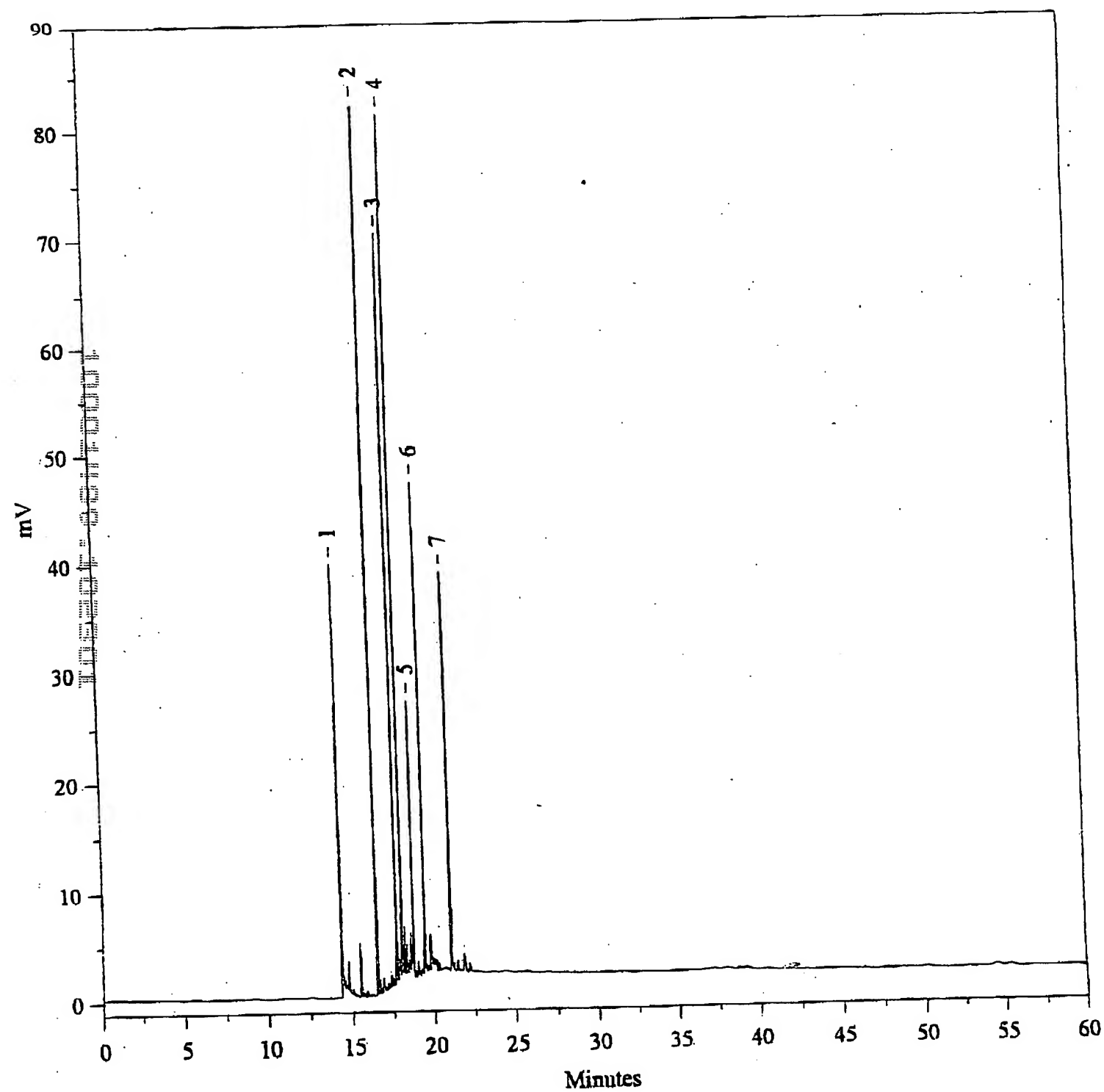
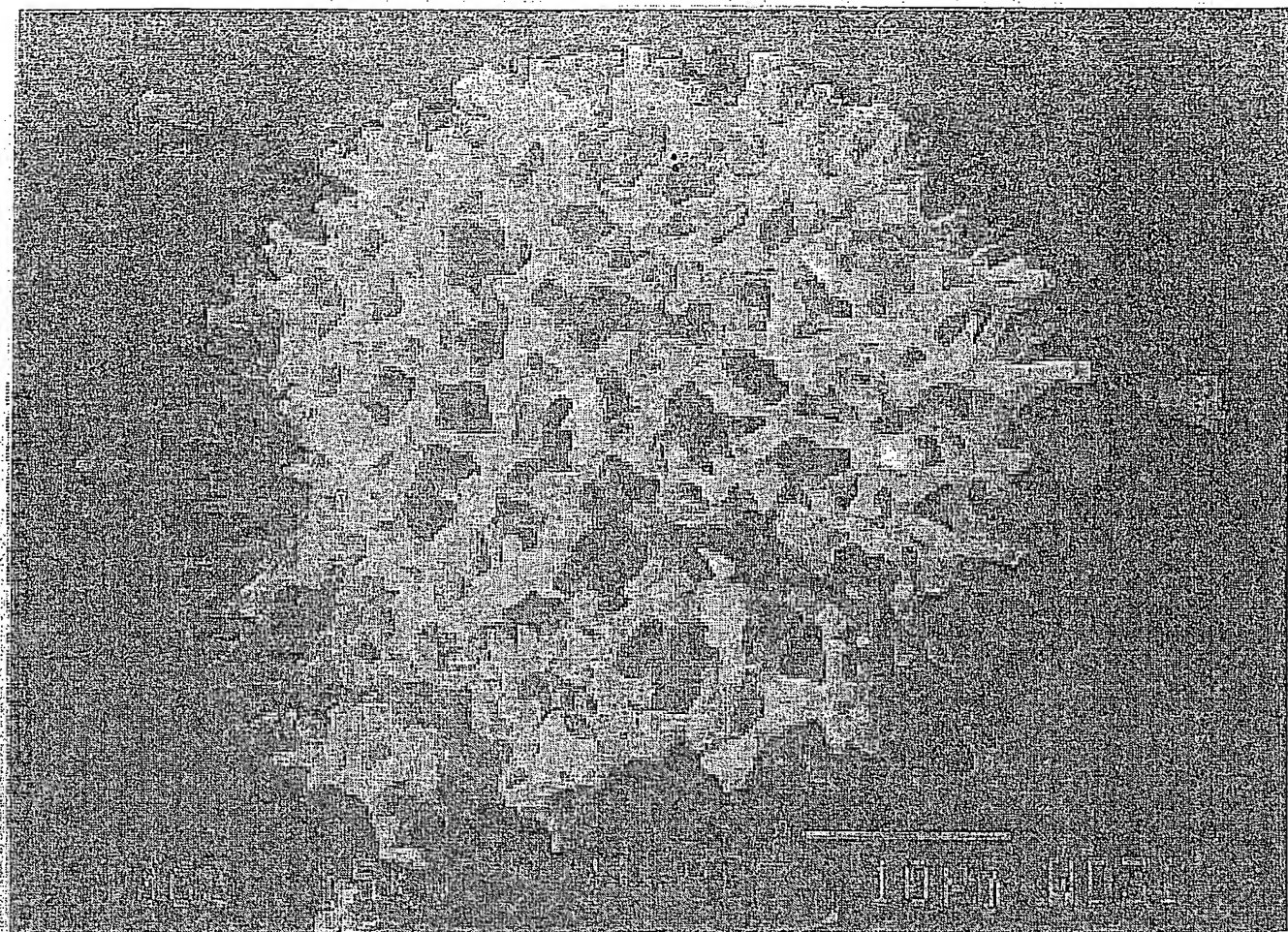


Figure 17



Scanning Electron Micrograph (SEM) Cross-sectional View  
of a Fused Silica Capillary with a Sol-gel Monolithic Bed

FIG. 18